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1987

BAMFORTH NATIONAL WILDLIFE REFUGE
Wyoming

Administered by Arapaho NWR
PO Box 457, Walden, Colorado

Introduction

Bamforth National Wildlife Refuge, located in the southern part of Albany County, Wyoming is small; the total number of acres is 1,666 consisting of 960 acres of grassland and 206 acres of marsh and water areas. A maximum of 206 acres of marsh and water areas is possible only under excellent runoff conditions during years when precipitation for the drainage area is high.

The principal use of the refuge and surrounding lands is grazing of cattle. There is no possibility of growing grains for waterfowl food because of the high alkalinity of the soil and undependable water supply.

The refuge is broken up into three disconnected parcels of land, which would make posting costs high, enforcement of hunting regulations impractical, and effective management almost impossible.

No development of the area has been done in the past, nor is any planned for the future, because of the lack of an adequate water supply.

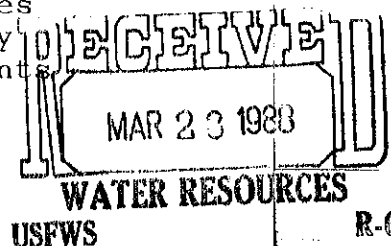
Waterfowl use of Bamforth NWR is sporadic, and then only for resting and feeding.

1987 Activities

John Eisemann accomplished some dike repair in August. The water supply was low in 1987 with only about a third of the amount of normal being diverted into the refuge.

One grazing permit for 99 AUM's at a rate of \$2.00/AUM is issued on an annual basis to a neighboring rancher. In exchange for the lower grazing fee, the permittee is responsible for irrigating refuge lands when the water is available.

George Allen, ES, Billings, MT collected two eared grebes and three avocets for a contaminants study. Preliminary results obtained early in 1988 may indicate a contaminant problem worthy of further research at Bamforth Lake.



The Wyoming toad (Bufo hemiophrys baxteri) was discovered by Dr. George Baxter in 1946. A related toad, Bufo hemiophrys hemiophrys (Canadian toad) occurs in Manitoba, Alberta, Saskatchewan, Minnesota, Montana, and North and South Dakota. The Wyoming toad is thought to be a relictual population left behind as glaciers retreated. Abundant in the 1960's, the toad population declined drastically during the early 1970's and when very few toads were heard or seen from 1975 through 1979, an intensive survey was conducted throughout the Laramie Basin in 1980. A number of males were heard calling, but no females were found nor were any tadpoles or egg masses discovered. The population existed within a forty acre area and was thought to consist of about 25 individuals; surveys in 1981 revealed only one male and one female. The reasons for the disappearance are still not understood. Two speculative theories are: 1) Chemical insecticides may have caused high mortality among tadpoles and/or, 2) Increased use of historical breeding habitat as irrigated hay meadows may have interfered with the reproductive cycle of the toad (drying and harvesting of hay may have caused high or complete mortality among untransformed larvae).

In the spring of 1983, an extensive field search was conducted which resulted in the finding of two juvenile Wyoming toads on the private ranch. A single adult toad was also discovered in the same area in September 1983. In 1984, a population of approximately 30 male toads was discovered in the same area during late May and early June. No females were located and subsequent observations found no evidence of reproduction. Intensive searches during May and June 1985, failed to turn up any toads. The situation took a turn for the better when in 1987, 60 toads were located, including 25 young of the year - the first evidence of reproduction in five years.

The still precipitous status of the toad, however, led to the working group meeting in September. Discussion centered around trying to identify the causes for the decline and possible efforts to save the population until whatever causes were identified could be remedied. Transplants of egg masses to more secure areas was recommended with captive propagation viewed as a last ditch resort. Members of the working group, including representatives of the FWS, Wyoming Game and Fish, and the University of Wyoming are continuing their collective efforts to arrive at a solution. More on this saga in 1988.

A check for \$1,374.00 was presented to Albany County as the 1986 in-lieu of taxes payment for Hutton Lake and Bamforth NWR's.